



# INSTRUCT-O-GRAM

## THE HANDS-ON TRAINING GUIDE FOR THE FIRE INSTRUCTOR

VOLUME XXII • ISSUE 7

JULY 2001

### ENGINE COMPANY OPERATIONS

#### TASK

The instructor will deliver the basic concepts of engine company operations. The focus of this drill is to allow the student to develop an improved understanding of the various water-related tasks involved in a firefighting operation and how they are to be implemented on the fireground.

#### INTRODUCTION

The student should have a basic understanding of their role in the fire department, and the role they are to play during firefighting operations. In order to better participate in the fireground operation, the student should have an understanding of what strategy is and how they fit in to the scheme.

They will receive information that will allow them to develop and understanding of the important role that fire department engine companies play during firefighting operations.

#### COURSE OUTLINE

1. A discussion of the importance of the operational modes available to the **Incident Commander**.

2. A discussion of the critical importance of water source selection.

#### PERFORMANCE OBJECTIVES

Our review of the **National Fire Protection Association Standard 1021, Standard for Professional Fire Officers Qualifications** makes absolutely not reference to the actual conduct of firefighting operations. They make great mention of how to manage a fire, how to establish command, how to transfer command and etc. However, they make no reference to a need for developing those necessary skills to conduct a firefighting operation.

#### PRESENTATION OUTLINE

##### *The Importance of Operational Modes*

Perhaps the most important element in determining the water delivery needs and the operational deployment style for a firefighting operation is the selection of the attack mode. In an earlier issue of the **Instruct-O-Gram**, we discussed some of the factors that you must take into consideration in choosing either an interior or an exterior attack.



Basically, you must weigh the challenge presented by the fire against the resources and water supply that are available.

Once you have decided the manner in which you intend to combat the fire, you can begin to develop the pieces of your firefighting puzzle. This is the point at which my theory of **BIG FIRE/BIG WATER – little fire/little water** comes into play. It is simple really. Big water is delivered and supplied through big hose and big appliances. It has a large demand for water. Little water is developed through little hose, and has a much smaller requirement for water.

**Instructor's Note: It is important to be able to use local examples of firefighting operations for this session. You must bring the textbook to life with examples to which your students can relate.**

Let us broaden the explanation of the fire attack operational modes at this time to include:

- ◆ The aggressive interior attack – **The Cavalry Charge**
- ◆ The **Blitz and Move In** style of attack where large caliber devices are used from the outside of the structure (s) to knock the fire down so that an interior attack can be attempted.
- ◆ The **Blitz and Ponder Moving in** method, where large caliber streams are used to buy the Incident Commander time to weigh the dangers of moving into the burning structure (s).
- ◆ The **Keep it to The Block of Origin** method where you realize that it will never be safe enough to enter the burning structure (s). Your objectives revolve around limiting the spread of the fire and confining it to the smallest area possible. (building/block/community)

### *When Do I Attack on the Inside?*

- ◆ Is the life at risk?
- ◆ Are there enough firefighters to do the job?
- ◆ Are you carrying sufficient on-board water supplies?
- ◆ Do we have an adequate, on-going water source available?
- ◆ How quickly can we establish this source?
- ◆ **Is it stupid to send people into the burning building you see in front of your eyes?**

It is important to explain the importance of each of these to the student. It may keep them from traveling down a dangerous path.

### *When Do I Use a Blitz Attack?*

- ◆ Heavy fire conditions
- ◆ Nearby exposures
- ◆ Adequate water supply
- ◆ Limited fire department staffing is available
- ◆ No nearby mutual aid

### *How Do I Blitz the Fire?*

- ◆ Put pre-piped water streams to work
- ◆ Stretch a quick supply line
- ◆ Stretch a quick large-size exterior attack line
- ◆ **Do Not Enter** the fire building until such time as the fire is knocked down and your crews have been assembled.



### *Should We Switch from Blitz Mode to Enter the Building Mode (defensive to offensive)?*

- ◆ If the fire will go out without you having to enter the building, then you might not want to risk you people.
- ◆ What might happen if we do put an interior line into service?
- ◆ Would it be stupid to send people into the burning building I seen in front of my eyes?
- ◆ What are the chances of safe success?

Safe success is the type of success where you bring everyone back to the fire station safely. Safe success is the price you have to pay for being safe and successful during your firefighting operations. You value your people over everyone else. Two further questions you must ask:

- ◆ Is the fire you are facing worth the price you might have to pay for a quick trip into the smoke and flames?
- ◆ Do the negatives of the picture in front of your outweigh the positive impact of an interior attack?

Each of these points must be consciously weighed and evaluated by the Incident Commander. You must consciously answer these questions as part of your sizeup and evaluation of risk. The lives and safety of your firefighters are at risk each time you make these decisions. Decide wisely.

### *The Importance of Water Source Selection*

A lack of water can doom a firefighting operation to failure. Each of the methods listed above will require the provision of a particular level of water supply. As you can imagine, the bigger the fire, the greater will be the requirement for an adequate water source to support your operation.

Some critical water supply questions must be answered:

- ◆ How reliable is your water source? (wells, lakes, reservoirs, etc.)
- ◆ If you have a municipal water system, how efficient are your processing and treatment facilities?
- ◆ Are these storage supplies sufficient for your needs?
- ◆ Do you have enough hydrants?
- ◆ Have you surveyed your community for drafting points?
- ◆ Are these sites mapped?
- ◆ Are the maps used?
- ◆ If you do not have a hydrant system, do you have mobile water tankers?
- ◆ If you do not have mobile water tankers, do your neighbors have them?
- ◆ Do you have portable pumps?
- ◆ Do you have portable storage tanks?

Each of these forms a critical element in your fire attack program. The answers to these questions can tell you how successful you might be in combating a variety of different sized fires.

### **Acknowledgment**

This Instruct-O-Gram was created by Dr. Harry R. Carter, MIFireE, a municipal fire protection consultant from Adelphia, New Jersey. Dr. Carter is the First Vice President of ISFSI.

### **Student Reference**

*Firefighting Strategy and Tactics – An Eight-Step Method*, Harry R. Carter, Ph.D.

*Fire Protection Publications*, Oklahoma State University, Stillwater, OK, 1998